Section 3

Tractor Identification and Specification MF2635

TRACTOR IDENTIFICATION

Each tractor is identified by a tractor serial number and an engine serial number. To ensure prompt response to ordering of service parts or repair from your dealer, always quote the tractor model, tractor serial number and engine serial number.

The tractor model number, type & serial number (chassis serial number) is stamped on the number plate fixed at the right-hand side of the steering housing - Fig. 1

Record this number for future reference.

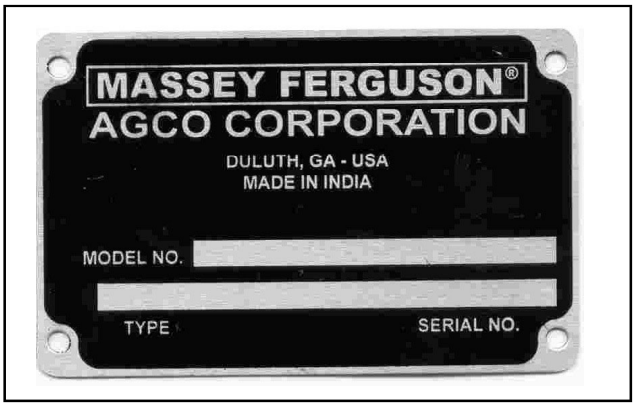

Fig. 1

The **engine serial number** is also stamped on the right-hand side of the engine block - Fig. 2.

The engine serial number for MF 2635 will be as follows:

T SJ436 E XXXXXXX

Record the exact serial number of the engine fitted to your tractor for future reference.

Fig. 2

SPECIFICATION OF TRACTOR UNIT

1. ENGINE

Name of Brand with Model	...	Simpsons TSJ436E, Turbo charged, direct injection diesel with PCV (Compliance to US Tier IV Interim norms)
Country of Origin	...	India
No. of Cylinders	...	4
Fuel System	...	Direct, BOSCH rotary mechanical governor
Fuel Filters	...	Twin type (spin on) - Inline Canister type
Engine Ps (ISO14396)	...	74.8 Ps @ 2200 Erpm
On PTO	...	60 to 64 Ps @ 2200 Erpm
On independent PTO	...	58 to 62 Ps @ 2200 Erpm
Displacement	...	0.95 gal (3.6 L)
Bore	...	3.74 inch (95 mm)
Stroke	...	5 inch (127 mm)
Compression Ratio	...	18.3 : 1
Air cleaner System	...	Dry type air cleaner with primary and secondary filter element
Exhaust	...	Vertical exhaust
Engine Cooling	...	Pressurized water cooling
Throttle	...	Hand and foot throttle
Aided Start	...	5° F (–15°C)
Engine Oil Drain Period	...	250 hrs

2a. CLUTCH

Type	...	Dual dry
Diameter	...	12 inch (305 mm) & 10 inch (254 mm)
Method of Operation	...	Manual with pendant pedal type operation

2b. SPLIT TORQUE CLUTCH

Type	...	Single dry
Diameter	...	12 inch (305 mm)
Method of Operation	...	Manual with pendent pedal type operation

3a. TRANSMISSION

Transmission Type	...	Full Sliding mesh with high / low epicyclic unit
No. of Speed	...	8 Forward + 2 Reverse
Gear Shift	...	Center Shift / Side Shift

3b. TRANSMISSION

Transmission Type	...	Full Synchromesh with high / low epicyclic unit
No. of Speed	...	8 Forward + 8 Reverse

4. REAR AXLE & FINAL DRIVE

Type	...	Crown wheel and pinion (38 X 11) with differential lock and epicyclic at wheel end
Rear Track Adjustments	...	60.5 inch - 84.3 inch (1537 - 2140 mm) adjustable in steps of 4 inch (102 mm) - STD track - 60.5 inch (1537mm)

5. STEERING

Type	...	Hydrostatic, DANFOSS steering unit, Bosch hydraulic driven by engine timing case gears with separate reservior
Location	...	Above clutch housing
Diameter of Steering Wheel	...	14.8 inch (378 mm)

6a. FRONT AXLE – 2WD

Type	...	Three piece, telescopic heavy duty straight front axle.
Front Track Adjustments	...	56 inch - 72 inch (1422 - 1830 mm), adjustable in steps of 4 inch(102 mm)

6b. FRONT AXLE – 4WD

Type	...	4WD front axle
Front Track Adjustments	...	56 inch - 60.4 inch (1424 mm -1534 mm), adjustable in steps of 4 inch (102 mm)

7. BRAKES

Type	...	Oil immersed brakes, wet multiple plate disc
Method of operation	...	Manual, foot operated, individual left-hand / right-hand or combined through pendant pedal operation
Parking Brake Type & Location	...	Mechanical, hand operated, mounted on the left-hand side fender
Method of Operation	...	By hand lever on left-hand side through cables, independent of foot brakes
Size of Liners and Liner Material	...	8.81 inch (224 mm) x 0.189 inch (4.82 mm) - 8 no's with paper based non-asbestos

8. HYDRAULIC SYSTEM

Pump	...	Mark III 4 cylinder scotch yoke piston pump with suction strainer
Auxiliary Hydraulic System	...	Integral with mark III pump(MF piggyback type)
Pump Capacity	...	5.15 gpm (19.5 lpm) @ 665 PTO rpm (2200 Erpm)(basic) 10.69 gpm (40.5 lpm) @ 665 PTO rpm (2200Erpm) (auxiliary) (First pump) 5.62 gpm (21.3 lpm) @ 665 PTO rpm (2200Erpm) (auxiliary) (second pump)
Lower links	...	Cat I & II (combined ball), leveling of implement by adjustable lift rod on right-hand side
Lifting Capacity	...	2050 kgf - Horizontal Range 1850 kgf - Throughout Range

9a. POWER TAKE OFF

Method of operation	...	Manual, Engagement by hand lever located on left-hand side
PTO Speed	...	540 rpm @ 1789 Erpm
Shaft diameter	...	1 3/8 inch (34.9 mm)
No. of Splines	...	6

9b. INDEPENDENT POWER TAKE OFF

Method of operation	...	Hydraulic clutch engagement by manually, lever operated type, located on left-hand side cover
IPTO Speed	...	540 rpm @ 1789 Erpm

10. ELECTRICAL SYSTEM

(a) STARTER MOTOR

Make & Model	...	LUCAS TVS, HD 10
Type	...	Pre- engaged with protection barrier, flange mounted
Voltage	...	12 V DC
Power	...	2.8 kW
Protection	...	Can be operated only when high-low selector is in neutral position and PTO in disengaged position

(b) ALTERNATOR

Make & Model	...	LUCAS TVS, A115
Regulated Voltage	...	12 V DC
Rated Output	...	45 A

(c) LIGHTS

Head Lights	...	35 W x 4 (Halogen)
Work Lamp	...	55 W x 1 (Halogen)
Flashing warning lamp	...	21 W x 4
Turn indicator Lamp /Tail lamp	...	21/5 W x 2

(d) FUSES

Horn	...	5A
Head lamps	...	15A
Flashing lights	...	25A
Start	...	10A
Work lamp	...	10A
Tail lights	...	5A
Fuel lift pump	...	10A
Instrument Cluster illumination	...	10A

KSB circuit	...	5A
Primary fuse	...	80A
Glow plug	...	80A
Auxiliary power	...	25A
(e) RELAY	...	Starter, High beam, Low beam, Flashing warning lamps, Turn Indicator lamp, KSB circuit, Fuel lift Pump, Timer relay
(f) SWITCHES	...	Rotary light switch, ignition switch, indicator switch, horn switch

11. INSTRUMENT GAUGES

... Instrument cluster with electronic RPM meter, voltmeter, engine oil pressure gauge, engine coolant temp. gauge, fuel gauge and indicators for head light high beam, left and right-hand turn signal, turn trailer, high temperature, low oil pressure, air filter restriction, 4 WD on (Only for 4WD tractors), battery charge indicator, Glow indicating lamp

12a.TIRES (FOR 2WD)

Front Tire	...	7.50 X16 - 6 Ply on 5.50F X 16 Rim
Rear Tire	...	16.9 X 28 - 8 Ply on W15L X 28 Rim

12b.TIRES (FOR 4WD)

Front Tire	...	9.50 X 24 - 6 Ply on W8 X 24 Rim
Rear Tire	...	16.9 X 28 - 8 Ply on W15L X 28 Rim

12c.LOAD & INFLATION TABLE

TIRE LOAD LIMITS LBS AT VARIOUS COLD INFLATION PRESSURES										
Tire Size	**Psi**	**24**	**28**	**32**	**36**	**40**	**44**	**48**	**52**	**56**
	bar	**1.65**	**1.93**	**2.21**	**2.34**	**2.48**	**3.033**	**3.309**	**3.585**	**3.861**
	LBS	990	1,100	1,200	1,320	1,390	14,806	1,570	1,650	17,108
7.50-16	**Kg**	449.06	498.95	544.31	598.74	630.49	6715.88	712.14	748.42	7760.05

TIRE LOAD LIMITS AT VARIOUS COLD INFLATION PRESSURES											
Tire Size	**Psi**	**12**	**14**	**16**	**18**	**20**	**22**	**24**	**26**	**28**	**30**
	bar	**0.83**	**0.97**	**1.10**	**1.24**	**1.38**	**1.52**	**1.65**	**1.79**	**1.93**	**2.07**
	LBS	1100	1200	1280	1390	1480(4)	1570	1650	1710	1820	1870(6)
9.5-24	**Kg**	498.95	544.31	580.60	630.49	671.32 (4)	712.14	748.43	775.64	825.54	848.217 (6)
	LBS	*2910	*3200	3420	3640(6)	3860	4080	4300(8)	4540	4680(10)	
16.9-28	**Kg**	*1319.95	*1451.49	1551.28	1651.07 (6)	1750.86	1850.65	1950.44 (8)	2059.30	2122.81 (10)	

* Values at these inflation pressures are for determination of dual loads only.

CAUTION: LOAD MUST NEVER EXCEED CAPABILITIES AS STATED ON TIRE SIDEWALL.

Source : www.titanstore.com/pdf/LoadandInflation.pdf

13. SEAT

Type ... Sliding seat with retractable seat belt

14. SHEET METAL

Fenders ... Shell type

15. CAPACITIES

Fuel Tank	...	17.17 gal (65 litre)
Engine oil (Sump + Oil filter)	...	2.38 gal (9.0 litre)
Cooling System	...	3.93 gal (14.9 litre)
Transmission & Hydraulic System	...	10 gal (38 litre)
Hydrostatic Steering System	...	0.5 gal (1.9 litre)

Front Axle (4WD)

Axle	...	0.990 gal (3.75 litre) (DANA).
	...	1.453 gal (5.5 litre) (CARRARO).
Hub Reduction	...	0.105 gal (0.4 litre) both sides (Dana Axle)
	...	0.316 gal (1.2 litre) both sides (Carraro Axle)

16. DIMENSIONS & WEIGHT (2WD)

Overall Length (with Lower links)	...	138 inch (3510 mm)
Overall Width	...	77.6 inch (1972 mm)
Overall Height (Over Rops)	...	94 inch (2395 mm)
Wheel Base	...	80.1 inch (2035 mm)
Min Ground Clearance (under Gear box)	...	15.5 inch (395 mm)
Turning Circle Radius with Brakes	...	134 inch (3400 mm)
Turning Circle Radius without Brakes	...	146 inch (3700 mm)
Tractor Weight with quantities of fuel, oils and coolant as per fill up data	...	5357 lb (2460 kg) – Approx.

16a. DIMENSIONS & WEIGHT (4WD)

Overall Length (with Lower links)	...	138 inch (3510 mm)
Overall Width	...	77.6 inch (1972 mm)
Overall Height (Over Rops)	...	94 inch (2395 mm)
Wheel Base	...	81.3 inch (2066 mm)
Min Ground Clearance (under Gear box)	...	15.5 inch (395 mm)
Turning Circle Radius with Brakes	...	138 inch (3530 mm) (4WD Engaged)
Turning Circle Radius without Brakes	...	178 inch (4520 mm) (4WD Engaged)
Turning Circle Radius with Brakes	...	142.5 inch (3620 mm) (4WD Disengaged)
Turning Circle Radius without Brakes	...	168 inch (4260 mm) (4WD Disengaged)
Tractor Weight with quantities of fuel, oils and coolant as per fill up data	...	5798 lb (2670 kg) – Approx.

SPEED CHART FOR 8X2 GEAR BOX

(16.9 x 28 Rear Tires)

8x2	Low Gear Range (mph)					Low Gear Range (kph)				
Engine RPM	1	2	3	4	R	1	2	3	4	R
800	0.6	0.9	1.2	1.6	0.8	1.0	1.4	2.0	2.6	1.3
1000	0.8	1.1	1.5	2.1	1.0	1.2	1.8	2.5	3.3	1.7
1200	0.9	1.3	1.8	2.5	1.2	1.5	2.2	3.0	4.0	2.0
1400	1.1	1.6	2.1	2.9	1.5	1.7	2.5	3.4	4.6	2.3
1600	1.2	1.8	2.4	3.3	1.7	2.0	2.9	3.9	5.3	2.7
1800	1.4	2.0	2.8	3.7	1.9	2.2	3.2	4.4	5.9	3.0
2000	1.5	2.2	3.1	4.1	2.1	2.5	3.6	4.9	6.6	3.3
2200	1.7	2.5	3.4	4.5	2.3	2.7	4.0	5.4	7.3	3.7

8x2	High Gear Range (mph)					High Gear Range (kph)				
Engine RPM	1	2	3	4	R	1	2	3	4	R
800	2.4	3.6	4.9	6.6	3.3	3.9	5.8	7.9	10.6	5.4
1000	3.1	4.5	6.1	8.2	4.2	4.9	7.2	9.8	13.2	6.7
1200	3.7	5.4	7.3	9.8	5.0	5.9	8.6	11.8	15.8	8.0
1400	4.3	6.3	8.6	11.5	5.8	6.9	10.1	13.8	18.5	9.4
1600	4.9	7.2	9.8	13.1	6.7	7.9	11.5	15.7	21.1	10.7
1800	5.5	8.1	11.0	14.8	7.5	8.8	13.0	17.7	23.8	12.0
2000	6.1	9.0	12.2	16.4	8.3	9.8	14.4	19.7	26.4	13.4
2200	6.7	9.8	13.5	18.1	9.1	10.8	15.8	21.6	29.1	14.7

SPEED CHART FOR 8X8 GEAR BOX

(16.9 x 28 Rear Tires)

8x8	Low Gear Range (mph)								Low Gear Range (kph)							
Engine RPM	F1	F2	F3	F4	R1	R2	R3	R4	F1	F2	F3	F4	R1	R2	R3	R4
800	0.6	1.0	1.4	2.0	0.7	1.0	1.4	2.0	1.0	1.6	2.3	3.2	1.1	1.6	2.3	3.3
1000	0.8	1.2	1.8	2.5	0.8	1.2	1.8	2.5	1.3	1.9	2.8	4.0	1.3	2.0	2.9	4.1
1200	1.0	1.4	2.1	3.0	1.0	1.5	2.2	3.1	1.6	2.3	3.4	4.8	1.6	2.4	3.5	4.9
1400	1.1	1.7	2.5	3.5	1.2	1.7	2.5	3.6	1.8	2.7	3.9	5.6	1.9	2.8	4.0	5.7
1600	1.3	1.9	2.8	4.0	1.3	2.0	2.9	4.1	2.1	3.1	4.5	6.4	2.1	3.2	4.6	6.6
1800	1.4	2.2	3.2	4.5	1.5	2.2	3.2	4.6	2.3	3.5	5.1	7.2	2.4	3.6	5.2	7.4
2000	1.6	2.4	3.5	5.0	1.6	2.5	3.6	5.1	2.6	3.9	5.6	8.0	2.7	4.0	5.8	8.2
2200	1.8	2.7	3.9	5.5	1.8	2.7	3.9	5.6	2.8	4.3	6.2	8.8	2.9	4.4	6.4	9.0

8x8	High Gear Range (mph)								High Gear Range (kph)							
Engine RPM	F1	F2	F3	F4	R1	R2	R3	R4	F1	F2	F3	F4	R1	R2	R3	R4
800	2.6	4.0	5.7	8.1	2.7	4.0	5.9	8.3	4.2	6.4	9.2	13.1	4.3	6.5	9.4	13.4
1000	3.3	4.9	7.2	10.2	3.4	5.1	7.3	10.4	5.3	7.9	11.5	16.4	5.4	8.1	11.8	16.8
1200	4.0	5.9	8.6	12.2	4.0	6.1	8.8	12.5	6.4	9.5	13.8	19.6	6.5	9.8	14.2	20.1
1400	4.6	6.9	10.0	14.2	4.7	7.1	10.3	14.6	7.4	11.1	16.1	22.9	7.6	11.4	16.5	23.5
1600	5.3	7.9	11.5	16.3	5.4	8.1	11.7	16.7	8.5	12.7	18.4	26.2	8.7	13.0	18.9	26.8
1800	5.9	8.9	12.9	18.3	6.1	9.1	13.2	18.8	9.5	14.3	20.7	29.5	9.8	14.7	21.3	30.2
2000	6.6	9.9	14.3	20.3	6.7	10.1	14.7	20.8	10.6	15.9	23.0	32.7	10.9	16.3	23.6	33.5
2200	7.2	10.9	15.8	22.4	7.4	11.1	16.1	22.9	11.7	17.5	25.4	36.0	11.9	17.9	26.0	36.9

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